

WHAT IS CLAIMED:

1. A drive socket for a fastener which is driven by a key driver, comprising:
a plurality of rounded lobes of substantially equal radius positioned about a center of the fastener, the lobes being located substantially equidistant from the center and a substantially equal distance from each other;
5 a plurality of flat surfaces positioned about the center of the fastener, the number of flat surfaces being substantially equal to the number of lobes, each flat surface being located substantially opposite one of the lobes and substantially equidistant from the center of the fastener; and
recesses located between the lobes and the flat surfaces.
2. The drive socket of claim 1, wherein each of the lobes projects inward toward the center of the fastener.
3. The drive socket of claim 1, wherein each of the recesses forms a substantially smooth transition between a lobe and a flat surface.
4. The drive socket of claim 1, wherein the lobes are positioned to provide a first clearance between an apex of each of the lobes and corresponding surfaces on a key driver inserted into the drive socket, and the flat surfaces are positioned to provide a second clearance between the flat surfaces and corresponding surfaces on the
5 key driver.
5. The drive socket of claim 4, wherein:
the first clearance is approximately 0.04 mm (0.0015 inch); and
the second clearance approximately 0.10 mm (0.0038 inch).

6. The drive socket of claim 1, wherein the recesses are sized to provide sufficient clearance such that the corners of a key driver inserted into the drive socket do not contact a wall of the drive socket.

7. A drive socket for a fastener which is driven by a key driver, comprising:
a plurality of rounded lobes of substantially equal radius positioned about a center of the fastener, the lobes being located substantially equidistant from the center and a substantially equal distance from each other, each of the lobes projecting inward
5 toward the center of the fastener, the lobes being positioned to provide a first clearance of approximately 0.04 mm (0.0015 inch) between an apex of each of the lobes and corresponding surfaces on a key driver inserted into the drive socket;

a plurality of flat surfaces positioned about the center of the fastener, the number of flat surfaces being substantially equal to the number of lobes, each flat surface being
10 located substantially opposite one of the lobes and substantially equidistant from the center of the fastener, the flat surfaces being positioned to provide a second clearance of approximately 0.10 mm (0.0038 inch) between the flat surfaces and corresponding surfaces on the key driver inserted into the drive socket; and

recesses located between the lobes and the flat surfaces, each of the recesses
15 forming a substantially smooth transition between a lobe and a flat surface, the recesses being sized to provide sufficient clearance such that the corners of a key driver inserted into the drive socket do not contact a wall of the drive socket.

8. A drive socket for a fastener which is driven by a key driver, comprising:
a first set of lobes of substantially equal radius positioned about a center of the fastener, the lobes within the first set being substantially equidistant from the center of the fastener and a substantially equal distance from each other, each of the lobes of the
5 first set including a flat surface which is located adjacent and tangentially to the radius portion of the lobe;

a second set of lobes of substantially equal radius positioned about the center of the fastener, the lobes within the second set being substantially equidistant from the

center of the fastener, a substantially equal distance from each other and a substantially
10 equal distance from adjacent lobes of the first set located on either side of the lobe of
the second set; and

recesses located between the lobes of the first set and the lobes of the second set.

9. The drive socket of claim 8, wherein each of the lobes of the first set and
each of the lobes of the second set projects inward toward the center of the fastener.

10. The drive socket of claim 8, wherein the radius of the lobes of the first
set and the radius of the lobes of the second set are substantially equal.

11. The drive socket of claim 8, wherein the distance between the lobes of
the first set and the center of the fastener and the distance between the lobes of the
second set and the center of the fastener is substantially equal.

12. The drive socket of claim 8, wherein each of the recesses forms a
substantially smooth transition between the lobes of the first set and the lobes of the
second set.

13. The drive socket of claim 12, wherein the recesses are sized to provide
sufficient clearance such that the corners of a key driver inserted into the drive socket
do not contact a wall of the drive socket.

14. The drive socket of claim 8, wherein the flat surfaces of the lobes in the
first set are positioned from each other at an angle substantially equal to 360° divided
by the number of lobes contained within the first set of lobes.

15. The drive socket of claim 8, wherein:

the lobes of the first set are positioned to provide a first clearance between an apex of each of the lobes of the first set and corresponding surfaces on a key driver inserted into the drive socket; and

5 the lobes of the second set are positioned to provide a second clearance between an apex of each of the lobes of the second set and corresponding surfaces on the key driver inserted into the drive socket.

16. The drive socket of claim 15, wherein:

the first clearance is approximately 0.04 mm (0.0015 inch); and

the second clearance is approximately 0.04 mm (0.0015 inch).

17. A drive socket for a fastener which is driven by a key driver, comprising:

a first set of lobes of substantially equal radius positioned about a center of the fastener, the lobes within the first set being substantially equidistant from the center of the fastener and a substantially equal distance apart from each other, each of the lobes
5 of the first set including a flat surface which is located adjacent and substantially tangential to the radius portion of the lobe, the flat surfaces of the lobes of the first set being positioned from each other at an angle substantially equal to 360° divided by the number of lobes contained within the first set of lobes, each of the lobes of the first set projecting inward toward the center of the fastener, the lobes of the first set being
10 positioned to provide a clearance of approximately 0.04 mm (0.0015 inch) between an apex of each of the lobes of the first set and corresponding surfaces on a key driver inserted into the drive socket;

a second set of lobes of substantially equal radius positioned about the center of the fastener, the number of lobes contained within the second set of lobes being
15 substantially equal to the number of lobes contained within the first set of lobes, the lobes within the second set being substantially equidistant from the center of the fastener and a substantially equal distance apart from each other and alternating substantially evenly between the lobes of the first set, each of the lobes of the second

20 set projecting inward toward the center of the fastener, the lobes of the second set being positioned to provide a clearance of approximately 0.04 mm (0.0015 inch) between an apex of each of the lobes of the second set and corresponding surfaces on a key driver inserted into the drive socket; and

25 recesses located between the lobes of the first set and the lobes of the second set, each of the recesses forming a substantially smooth transition between the lobes of the first set and the lobes of the second set, the recesses being sized to provide sufficient clearance such that the corners of a key driver inserted into the drive socket do not contact a wall of the drive socket.

18. The drive socket of claim 17, wherein the radius of the lobes of the first set and the radius of the lobes of the second set are substantially equal.

19. The drive socket of claim 17, wherein the distance between the lobes of the first set and the center of the fastener and the distance between the lobes of the second set and the center of the fastener are substantially equal.